

Notice of Allowability

Application No.

10/602,143

Examiner

Matthew Landau

Applicant(s)

COK ET AL.

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed August 13, 2004.
2. ☒ The allowed claim(s) is/are 1-9,11-17,20-27 and 30-38.
3. ☒ The drawings filed on 13 August 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 6/14/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

TOM THOMAS
SUPERVISORY EXAMINER
TECHNOLOGY CENTER 2800

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Raymond Owens (Reg. #22,363) on November 29, 2004.

Please amend the claims as follows:

20. (currently amended) A laser emitting apparatus, comprising:

a) an optically transparent layer;

b) an incoherent light emitting device including:

i) a first transparent electrode located on one side of the optically transparent layer;

ii) a light emissive layer adjacent the first electrode to produce a pump beam light which is transmitted out of the incoherent light-emitting device through the first transparent electrode and the optically transparent layer;

iii) a second electrode adjacent the light emissive layer;

c) a vertical laser cavity structure located on the other side of the optically transparent layer and disposed to receive the pump beam light transmitted from the incoherent light-emitting device through the optically transparent layer, such structure including:

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i) a first DBR mirror for receiving and transmitting light from the incoherent light-emitting device and being reflective to laser light over a predetermined range of wavelengths;

ii) an ~~incoherent~~ organic active layer for receiving transmitted light from the first DBR mirror and for producing laser light; and

iii) a second DBR mirror for reflecting transmitted ~~OLED~~ incoherent light and laser light from the ~~incoherent~~ organic active layer back into the ~~incoherent~~ organic active layer and for transmitting laser light; and

d) a substrate located adjacent to either the second electrode or the second DBR mirror.

30. (currently amended) A laser emitting apparatus, comprising:

a) an optically transparent layer;

b) an incoherent light emitting device including:

i) a first transparent electrode located on one side of the optically transparent layer;

ii) a light emissive layer adjacent the first electrode to produce a pump beam light which is transmitted out of the incoherent light-emitting device through the first transparent electrode and the optically transparent layer;

iii) a second electrode adjacent the light emissive layer;

c) a vertical laser cavity structure disposed to receive a pump beam light transmitted from the incoherent light-emitting device through the optically transparent layer, such structure including:

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- i) a first DBR mirror for receiving and transmitting light from the ~~organic~~ incoherent light-emitting device and being reflective to laser light over a predetermined range of wavelengths;
- ii) an organic active layer for receiving transmitted ~~OLED~~ incoherent light from the first DBR mirror and for producing laser light; and
- iii) a second DBR mirror for reflecting transmitted ~~OLED~~ incoherent light and laser light from the organic active layer back into the organic active layer, the first DBR mirror being adapted to transmit laser light; and
- d) a substrate located adjacent to either the second electrode or the second DBR mirror.

Drawings

The drawings were received on August 13, 2004. These drawings are acceptable.

Terminal Disclaimer

The terminal disclaimer filed on August 13, 2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Patent No. 6,658,037, has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

Claims 1-9, 11-17, 20-27, and 30-38 allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record, either singularly or in combination, does not disclose or suggest the combination of

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limitations including a vertical laser cavity structure disposed to receive the pump beam light transmitted from the incoherent light-emitting device through the optically transparent layer, such structure including an organic active layer for receiving light from the incoherent light-emitting device and from the first light-receiving means and for producing laser light.

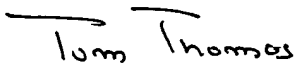
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Landau whose telephone number is (571) 272-1731.

The examiner can normally be reached from 8:30 AM - 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


TOM THOMAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2000

Matthew C. Landau

Examiner

November 29, 2004